

REMARKS

The application has been reviewed in light of the Office Action dated August 3, 3000. Claims 1, 3-9, 11-18, 20-25 and 45-48 are pending in this application, with claims 1, 7, 9, 17, 18, 24 and 45-48 being in independent form. By the present Amendment, claims 9 and 18 have been amended and new claims 45-48 have been added. It is submitted that no new matter has been added and no new issues have been raised by the present Amendment.

Claims 9 and 18 were rejected under 35 U.S.C. 112 as allegedly being indefinite. In response, claims 9 and 18 have been amended to correct the informalities noted in the Office Action. It is noted that the claim changes do not in any way narrow the scope of the claims. Withdrawal of the rejection under 35 U.S.C. 112, second paragraph, is respectfully requested.

Claims 1, 3-5, 7, 9, 11, 12, 13, 18, 20, 21, and 24 were rejected under 35 U.S.C. 103(a) as allegedly unpatentable over U.S. Patent 5,710,591 to Bruno et al. in view of Cohen et al., IEEE 1993, "Virtual gain for audio windows". Claims 6, 14-16 and 23 were rejected under Section 103(a) as allegedly unpatentable over Bruno et al. in view of Cohen et al. and further in view of U.S. Patent 5,764,750 to Chau et al. Claims 8, 17 and 25 were rejected under Section 103(a) as allegedly unpatentable over Bruno et al. in view of Cohen et al. and further in view of U.S. Patent 5,864,816 to Everett.

Independent claim 1 of the present application relates to an audio conference server for enabling an application program to provide multi-point, weight-controllable audio conferencing. The audio conference server comprises means for managing at least one audio conference, the one audio conference comprising a plurality of audio clients, means for receiving audio data from said plurality of audio clients and means for mixing said audio data to provide spatialized audio data to the plurality of audio clients. The mixing means includes

means for providing distance-based attenuation according to sound decay characteristics and the mixing means results in mixed audio data. The audio conference server also provides means for delivering said mixed audio data to said plurality of audio clients

Bruno et al, as understood by Applicant, relates to a method and apparatus for recording and indexing audio information exchanged during an audio conference call or video, audio and data information exchanged during a multimedia conference. Voice activated switching functionality of a multipoint control unit provides a video signal, which is input into the multipoint control unit from a workstation from which an audio signal is detected, to each of the other workstations in the conference. A workstation or participant-identification signal is generated by the multipoint control unit and stored with the audio signal and video information.

Cohen et al., as understood by applicant, relates to audio windowing at a frontend, or user interface, to an audio system with a spatial sound backend. Gain adjustment is "used to control the volume of the various sources." (Abstract, page 85) A virtual gain "can be synthesized from components derived from iconic size, distance, orientation and directivity and selectively enabled according to room-wise positioning of sources across sinks." (Abstract, page 85) As understood by Applicant, virtual gain can be composed into four dimensionless components including distance effects ($\text{gain}_{\text{distance}}$). (Cohen et al., p 86) The distance-dependent gain ($\text{gain}_{\text{distance}}$) can capture the effects of distance between source and sink and is defined by a set formula. (Cohen et al., page 87-88) The distant-dependent gain of Cohen et al. depends on a set formula for all sounds. That is, in Cohen et al., the distance-dependent gain ($\text{gain}_{\text{distance}}$) is a single value at any given distance from a source. (See p. 87-88 and Figure 3)

However, Applicant finds no teaching or suggestion of providing distance-based attenuation according to sound decay characteristics, as recited in claim 1. Such sound decay characteristics are represented, for example, in FIG. 7 of the present application. Note that FIG. 7 is merely an example of sound decay characteristics according to an embodiment of the present application and in no way is intended to limit the scope of the claims.

Accordingly, Applicant respectfully submits independent claim 1 is patentable over the cited art.

Independent claims 9 and 18 are believed to be patentable over the cited art for at least similar reasons.

Regarding claims 7 and 24, the Examiner contends that Cohen et al. inherently discloses an audio big decay factor, an audio small decay factor, an audio medium decay factor and a constant decay factor in allegedly disclosing a continued gradual decay characteristic with reference to Figure 3 of Cohen et al. (Detailed Action, page 5).

As understood by Applicant, Figure 3 of Cohen et al. is an evaluation of distance-dependent gain ($\text{gain}_{\text{distance}}$) at various distances from a source. Specifically, Figure 3 illustrates the desired behavior "to drop from loudest when the objects are touching each other to quiet across the room." (Cohen et al., Page 87-88)

However, Cohen et al. is not understood to teach or suggest identifying a decay factor from one of a plurality of pre-defined decay factors and a customized decay factor for each of said plurality of audio clients, said plurality of pre-defined decay factors including an audio big decay factor, an audio small decay factor, an audio medium decay factor, and a constant decay factor, as recited in claims 7, 17 and 24 of the present application.

Therefore, it is respectfully submitted that claims 7 and 24 and the claims depending therefrom, are patentable over the prior art for at least the above-mentioned reasons.

Independent claim 17 is believed to be patentable over the combination of Bruno et al. and Cohen et al. for at least similar reasons. Further, claim 17 is believed to be patentable over Bruno et al. in view of Cohen et al. and further in view of Everett as there are no features of Everett that could be combined with Bruno et al. and Cohen et al. to yield the limitations of claim 17.

Accordingly, Applicant respectfully submits that claim 17 is patentable over the prior art for at least the above-mentioned reasons.

New independent claims 45-48 are believed to be patentable for at least one or more of the reasons mentioned above.

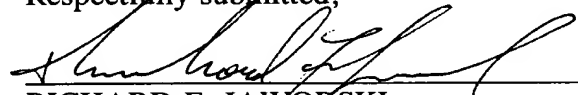
The Office is hereby authorized to charge any additional fees which may be required in connection with this amendment and to credit any overpayment to our Deposit Account No. 03-3125.

If a petition for an extension of time is required to make this response timely, this paper should be considered to be such a petition, and the Commissioner is authorized to charge the requisite fees to our Deposit Account No. 03-3125.

If a telephone interview could advance the prosecution of this application, the Examiner is respectfully requested to call the undersigned attorney.

Entry of this amendment and allowance of this application are respectfully requested.

Respectfully submitted,



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